

WHAT IS CLAIMED IS:

1. Software for use on a client device that is configured for communications via a
2 communications network, comprising:

4 a communications function that effects an advertisement download communication
link between the client device and an advertisement distribution server system via the
communications network, at selected advertisement download times;

6 an advertisement download function that downloads advertisements identified in a
playlist(s) generated by at least one playlist server, via the advertisement download
8 communication link, at the selected advertisement download times;

10 an advertisement storage function for storing the downloaded advertisements on a
storage medium associated with the client device; and

12 an advertisement display function that effects display of at least selected ones of the
stored advertisements.

2 2. The software as set forth in Claim 1, wherein the advertisement distribution server
system includes:

4 at least one ad server, each of which stores at least one of the advertisements to be
downloaded; and

the at least one playlist server.

2 3. The software as set forth in Claim 1, wherein the playlist(s) contains a list of the
advertisements to be downloaded, and a source address where each listed advertisement can
be fetched.

2 4. The software as set forth in Claim 2, wherein the playlist(s) contains a list of the
advertisements to be downloaded, and the address of the ad server where each listed
advertisement is stored.

2 5. The software as set forth in Claim 1, wherein the advertisement distribution server
system is controlled by a vendor of the software.

2 6. The software as set forth in Claim 1, wherein the communications network
comprises the Internet.

7. The software as set forth in Claim 1, wherein the software is subsidized by

2 revenues attributable to the downloaded advertisements.

8. The software as set forth in Claim 2, wherein the advertisement distribution server
2 system is controlled by a vendor of the software.

9. The software as set forth in Claim 2, wherein the communications network
2 comprises the Internet.

10. The software as set forth in Claim 2, wherein the software is subsidized by
2 revenues attributable to the downloaded advertisements.

11. The software as set forth in Claim 2, wherein the at least one ad server comprises
2 a plurality of ad servers that each store at least one of the advertisements to be downloaded.

12. The software as set forth in Claim 2, wherein:
2 the at least one playlist server is controlled by a vendor of the software; and
4 the at least one ad server comprises a plurality of ad servers that each store one or
more advertisements to be distributed to clients of the vendor of the software; and
at least one of the plurality of ad servers is controlled by the vendor of the software.

13. The software as set forth in Claim 2, wherein:
2 the at least one playlist server is controlled by a vendor of the software; and
4 the at least one ad server comprises a plurality of ad servers that each store one or
more advertisements to be distributed to clients of the vendor of the software; and
at least one of the plurality of ad servers is controlled by an entity other than the
6 vendor of the software that has granted the vendor of the software and its clients access to its
ad server(s).

14. The software as set forth in Claim 6, wherein the advertisement distribution
2 server system includes:
4 a plurality of ad servers, each of which stores one or more of the advertisements to be
downloaded, each advertisement being stored in a storage location designated by a URI;
the at least one playlist server.

15. The software as set forth in Claim 14, wherein the playlist(s) contains a list of ad
2 identifiers and corresponding URIs that identify respective ones of the advertisements to be

downloaded, and the corresponding storage location from which each respective
4 advertisement can be fetched.

16. The software as set forth in Claim 15, wherein the advertisement download
2 function includes:

4 a client device playlist identification function that transmits an identification of a
current playlist(s) currently being used by the client device to the at least one playlist server
6 at prescribed playlist check intervals, wherein the at least one playlist server responds either
by transmitting to the client device an indication that the current playlist(s) is valid and does
not need to be augmented, or by transmitting to the client device a new playlist(s); and

8 a playlist comparison function that compares the ad identifiers listed in the current
playlist(s) with the ad identifiers listed in the new playlist(s), and that generates a list of URIs
10 of the advertisements corresponding to the ad identifiers in the new playlist(s) that are
different from the ad identifiers in the current playlist(s); and

12 an ad fetch function that fetches the advertisements corresponding to the generated list
of URIs from the appropriate one(s) of the plurality of ad servers, over one or more
14 advertisement download sessions.

17. The software as set forth in Claim 16, wherein the one or more advertisement
2 download sessions coincide with the selected advertisement download times.

18. The software as set forth in Claim 17, wherein the selected advertisement
2 download times span a plurality of online e-mail sessions during which the client device is
online for the purpose of sending and/or receiving e-mail messages.

19. The software as set forth in Claim 17, wherein the selected advertisement
2 download times coincide with times when the client device is online for a purpose other than
for sending and/or receiving e-mail messages.

20. The software as set forth in Claim 16, further comprising an ad deletion function
that deletes from storage on the client device all advertisements corresponding to the ad
identifiers in the current playlist(s) that are not contained in the new playlist(s).

21. The software as set forth in Claim 16, wherein each advertisement download
2 session is limited to a prescribed maximum time duration.

22. The software as set forth in Claim 16, wherein the advertisement download
2 function further includes an ad fetch timer function that limits the duration of each
advertisement download session to a prescribed maximum time period.

23. The software as set forth in Claim 18, wherein the advertisement download
2 function further includes an ad fetch timer function that limits the duration of each
advertisement download session to a prescribed maximum time period.

24. The software as set forth in Claim 16, further comprising a playlist merge
2 function that merges the current playlist(s) and the new playlist(s).

25. The software as set forth in Claim 1, wherein the advertisements comprise
2 advertisement files each of which includes an advertisement and a plurality of ad display
parameters associated with that advertisement.

26. The software as set forth in Claim 25, wherein the advertisement display function
2 displays the stored advertisements according to the ad display parameters.

27. The software as set forth in Claim 1, wherein:
2 the advertisements comprise advertisement files; and
4 the advertisement download function downloads separate portions of a single
advertisement file over two or more advertisement download sessions.

28. The software as set forth in Claim 27, wherein each advertisement includes an
2 image.

29. The software as set forth in Claim 28, wherein each image comprises one of a
2 GIF image, a PNG image and a JPEG image.

30. The software as set forth in Claim 27, wherein each advertisement download
2 session is limited to a prescribed maximum time duration.

31. The software as set forth in Claim 27, wherein the advertisement download
2 function further includes an ad fetch timer function that limits the duration of each
advertisement download session to a prescribed maximum time period.

32. The software as set forth in Claim 1, wherein the playlist(s) includes ad display
2 parameters that specify, for each of prescribed ones of the at least selected ones of the
4 plurality of stored advertisements, how many times that advertisement is to be displayed for a
given time period, and how long that advertisement is to be displayed each time that it is
displayed.

33. The software as set forth in Claim 1, wherein the playlist(s) includes ad display
2 parameters that specify, for each of prescribed ones of the at least selected ones of the
4 plurality of stored advertisements, how many times that advertisement is to be displayed for a
given time period.

34. The software as set forth in Claim 1, wherein the playlist(s) includes ad display
2 parameters that specify, for each of prescribed ones of the at least selected ones of the
4 plurality of stored advertisements, how long that advertisement is to be displayed each time
that it is displayed.

35. The software as set forth in Claim 1, wherein the playlist(s) includes ad display
2 parameters that specify, for each of prescribed ones of the at least selected ones of the
4 plurality of stored advertisements, a start date/time before which the associated advertisement
should not be displayed, and the end date/time after which the associated advertisement
should not be displayed.

36. The software as set forth in Claim 1, wherein the playlist(s) includes ad display
2 parameters that specify, for each of prescribed ones of the at least selected ones of the
4 plurality of stored advertisements, the total/cumulative amount of time that advertisement is
to be displayed.

37. The software as set forth in Claim 1, wherein the playlist(s) includes ad display
2 parameters that include, for each of prescribed ones of the at least selected ones of the
4 plurality of stored advertisements, any one or more of the following parameters:

- 4 a maximum face time that the associated advertisement is to be displayed each time
that it is displayed;
- 6 a maximum cumulative face time that the associated advertisement is to be displayed;
the maximum number of times per day that the associated advertisement is to be
8 displayed;

 the start date/time before which the associated advertisement should not be displayed;

10 and

the end date/time after which the associated advertisement should not be displayed;

12 wherein the face time comprises a time period during which a prescribed minimum level of user activity occurs.

38. The software as set forth in Claim 1, wherein the playlist(s) includes ad display parameters that include, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, any two or more of the following parameters:

4 a maximum face time that the associated advertisement is to be displayed each time that it is displayed;

6 a maximum cumulative face time that the associated advertisement is to be displayed; the maximum number of times per day that the associated advertisement is to be

8 displayed;

the start date/time before which the associated advertisement should not be displayed;

10 and

the end date/time after which the associated advertisement should not be displayed;

12 wherein the face time comprises a time period during which a prescribed minimum level of user activity occurs.

39. The software as set forth in Claim 26, wherein the ad display parameters specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, how many times that advertisement is to be displayed for a given time period, and how long that advertisement is to be displayed each time that it is displayed.

40. The software as set forth in Claim 26, wherein the ad display parameters specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, how many times that advertisement is to be displayed for a given time period.

41. The software as set forth in Claim 26, wherein the ad display parameters specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, how long that advertisement is to be displayed each time that it is displayed.

42. The software as set forth in Claim 26, wherein the ad display parameters specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, a start date/time before which the associated advertisement should not be displayed, and the end date/time after which the associated advertisement should not be

displayed.

43. The software as set forth in Claim 26, wherein the ad display parameters specify,
2 for each of prescribed ones of the at least selected ones of the plurality of stored
advertisements, the total/cumulative amount of time that advertisement is to be displayed.

44. The software as set forth in Claim 26, wherein the ad display parameters include,
2 for each of prescribed ones of the at least selected ones of the plurality of stored
advertisements, any one or more of the following parameters:

4 a maximum face time that the associated advertisement is to be displayed each time
that it is displayed;

6 a maximum cumulative face time that the associated advertisement is to be displayed;
8 the maximum number of times per day that the associated advertisement is to be
displayed;

10 and
the start date/time before which the associated advertisement should not be displayed;

12 the end date/time after which the associated advertisement should not be displayed;
wherein the face time comprises a time period during which a prescribed minimum
level of user activity occurs.

45. The software as set forth in Claim 26, wherein the ad display parameters include,
2 for each of prescribed ones of the at least selected ones of the plurality of stored
advertisements, any two or more of the following parameters:

4 a maximum face time that the associated advertisement is to be displayed each time
that it is displayed;

6 a maximum cumulative face time that the associated advertisement is to be displayed;
8 the maximum number of times per day that the associated advertisement is to be
displayed;

10 and
the start date/time before which the associated advertisement should not be displayed;

12 the end date/time after which the associated advertisement should not be displayed;
wherein the face time comprises a time period during which a prescribed minimum
level of user activity occurs.

46. The software as set forth in Claim 1, further comprising a cookie generator
2 function that generates a cookie containing information relating to user/client device behavior

and/or user demographics, and that transmits the cookie to the at least one playlist server.

47. The software as set forth in Claim 46, wherein the playlist(s) is generated by the
2 at least one playlist server based at least partially on the cookie.

48. The software as set forth in Claim 1, wherein the playlist(s) is customized to the
2 user.

49. The software as set forth in Claim 1, wherein the playlist(s) is tailored to the user.

50. The software as set forth in Claim 1, wherein the playlist(s) is generated by the at
2 least one playlist server based at least partially on user demographics and/or user/client
device behavior.

51. The software as set forth in Claim 1, wherein the at least one playlist server is
2 controlled by a vendor of the software.

52. The software as set forth in Claim 1, wherein the software is e-mail software.

53. The software as set forth in Claim 1, wherein the playlist(s) is generated by the at
2 least one playlist server based at least partially on user demographics.

54. The software as set forth in Claim 1, wherein the playlist(s) is generated by the at
2 least one playlist server based at least partially on user/client device behavior.

55. The software as set forth in Claim 1, further comprising an advertisement
2 download monitor function that determines whether or not an ad download failure condition
has occurred, whereby the ad download failure condition occurs when the advertisement
4 download function has not successfully downloaded advertisements over a prescribed time
period.

56. The software as set forth in Claim 1, further comprising an advertisement
2 download monitor function that determines whether or not an ad download failure condition
has occurred.

57. The software as set forth in Claim 55, further comprising a disabler function that

2 disables at least selected functions of the software in response to a determination that an ad download failure condition has occurred.

58. The software as set forth in Claim 56, further comprising a disabler function that
2 disables at least selected features of the software in response to a determination that an ad download failure condition has occurred.

59. The software as set forth in Claim 57, further comprising a disabler function that
2 disables the software in response to a determination that an ad download failure condition has occurred.

60. The software as set forth in Claim 59, further comprising an ad download failure
2 nag function that generates an ad download failure nag that notifies the user that
advertisements have not been successfully downloaded.

61. The software as set forth in Claim 60, wherein the ad download failure nag also
2 warns the user that at least selected functions of the software will be disabled if the ad download failure condition is not rectified.

62. The software as set forth in Claim 56, wherein the ad download failure condition
2 occurs when the advertisement download function has not successfully downloaded
advertisements over a prescribed time period.

63. The software as set forth in Claim 62, further comprising an ad download failure
2 nag function that generates an ad download failure nag that notifies the user that
advertisements have not been successfully downloaded, in response to a determination that an
4 ad download failure condition has occurred.

64. The software as set forth in Claim 63, further comprising:
2 an alert function that generates an alert that notifies the user that at least selected
functions of the software are about to be disabled unless the user takes corrective action to
4 eliminate the ad download failure condition; and
a disabler function that disables at least selected functions of the software if the user
6 does not take the required corrective action.

65. Software for use on a client device that is configured for communications via a

2 communications network, comprising:
4 a playlist fetch function that fetches a playlist(s) from a playlist server, wherein the
4 playlist(s) identifies advertisements to be fetched;
6 an ad download function that downloads the advertisements identified in the
6 playlist(s) from an advertisement distribution system, via the communications network,
during one or more advertisement download sessions;
8 an advertisement storage function for storing the downloaded advertisements on a
storage medium associated with the client device; and
10 an advertisement display function that effects display of at least selected ones of the
stored advertisements on a display associated with the client device.

2 66. The software as set forth in Claim 65, wherein the playlist(s) contains a list of ad
2 identifiers that identify respective ones of the advertisements to be fetched.

2 67. The software as set forth in Claim 66, wherein the playlist(s) further contains a
2 list of source addresses where respective ones of the advertisements to be fetched can be
fetched.

2 68. The software as set forth in Claim 65, wherein the advertisement distribution
2 system includes:
4 at least one ad server, each of which stores at least one of the advertisements to be
downloaded; and
 the at least one playlist server.

2 69. The software as set forth in Claim 68, wherein the software is subsidized by
2 revenues attributable to the downloaded advertisements.

2 70. The software as set forth in Claim 68, wherein the at least one ad server
2 comprises a plurality of ad servers that each store at least one of the advertisements to be
downloaded.

2 71. The software as set forth in Claim 68, wherein:
2 the at least one playlist server is controlled by a vendor of the software; and
4 the at least one ad server comprises a plurality of ad servers that each store one or
4 more advertisements to be distributed to clients of the vendor of the software; and
 at least one of the plurality of ad servers is controlled by the vendor of the software.

72. The software as set forth in Claim 68, wherein:

2 the at least one playlist server is controlled by a vendor of the software; and
4 the at least one ad server comprises a plurality of ad servers that each store one or
more advertisements to be distributed to clients of the vendor of the software; and
6 at least one of the plurality of ad servers is controlled by an entity other than the
vendor of the software that has granted the vendor of the software and its clients access to its
ad server(s).

73. The software as set forth in Claim 65, wherein the advertisement distribution
2 system includes:

4 a plurality of ad servers, each of which stores one or more of the advertisements to be
downloaded, each advertisement being stored in a storage location designated by a URI;
6 the at least one playlist server.

74. The software as set forth in Claim 73, wherein the playlist contains a list of ad
2 identifiers and corresponding URIs that identify respective ones of the advertisements to be
4 downloaded, and the corresponding storage location from which each respective
6 advertisement can be fetched.

75. The software as set forth in Claim 74, wherein the ad download function
2 includes:

4 a client device playlist identification function that transmits an identification of a
current playlist(s) currently being used by the client device to the at least one playlist server
6 at prescribed playlist check intervals, wherein the at least one playlist server responds either
8 by transmitting to the client device an indication that the current playlist(s) is valid and does
not need to be augmented, or by transmitting to the client device a new playlist(s); and

10 a playlist comparison function that compares the ad identifiers listed in the current
playlist(s) with the ad identifiers listed in the new playlist(s), and that generates a list of URIs
12 of the advertisements corresponding to the ad identifiers in the new playlist(s) that are
14 different from the ad identifiers in the current playlist(s); and

12 an ad fetch function that fetches the advertisements corresponding to the generated list
of URIs from the appropriate one(s) of the plurality of ad servers, over one or more
14 advertisement download sessions.

76. The software as set forth in Claim 75, further comprising an ad deletion function

2 that deletes from storage on the client device all advertisements corresponding to the ad identifiers in the current playlist(s) that are not contained in the new playlist(s).

2 77. The software as set forth in Claim 75, further comprising a playlist merge function that merges the current playlist(s) and the new playlist(s).

2 78. The software as set forth in Claim 65, wherein each advertisement download session is limited to a prescribed maximum time duration.

2 79. The software as set forth in Claim 65, wherein the ad download function further includes an ad fetch timer function that limits the duration of each advertisement download session to a prescribed maximum time period.

2 80. The software as set forth in Claim 65, wherein the playlist(s) includes ad display parameters that specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, how many times that advertisement is to be displayed for a given time period, and how long that advertisement is to be displayed each time that it is displayed.

2 81. The software as set forth in Claim 65, wherein the playlist(s) includes ad display parameters that specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, how many times that advertisement is to be displayed for a given time period.

2 82. The software as set forth in Claim 65, wherein the playlist(s) includes ad display parameters that specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, how long that advertisement is to be displayed each time that it is displayed.

2 83. The software as set forth in Claim 65, wherein the playlist(s) includes ad display parameters that specify, for each of prescribed ones of the at least selected ones of the plurality of stored advertisements, a start date/time before which the associated advertisement should not be displayed, and the end date/time after which the associated advertisement should not be displayed.

84. The software as set forth in Claim 65, wherein the playlist(s) includes ad display

2 parameters that specify, for each of prescribed ones of the at least selected ones of the
plurality of stored advertisements, the total/cumulative amount of time that advertisement is
4 to be displayed.

85. The software as set forth in Claim 65, wherein the playlist(s) includes ad display
2 parameters that include, for each of prescribed ones of the at least selected ones of the
plurality of stored advertisements, any one or more of the following parameters:

4 a maximum face time that the associated advertisement is to be displayed each time
that it is displayed;

6 a maximum cumulative face time that the associated advertisement is to be displayed;
the maximum number of times per day that the associated advertisement is to be
8 displayed;

10 the start date/time before which the associated advertisement should not be displayed;
and

12 the end date/time after which the associated advertisement should not be displayed;
wherein the face time comprises a time period during which a prescribed minimum
level of user activity occurs.

86. The software as set forth in Claim 65, wherein the playlist(s) includes ad display
2 parameters that include, for each of prescribed ones of the at least selected ones of the
plurality of stored advertisements, any two or more of the following parameters:

4 a maximum face time that the associated advertisement is to be displayed each time
that it is displayed;

6 a maximum cumulative face time that the associated advertisement is to be displayed;
the maximum number of times per day that the associated advertisement is to be
8 displayed;

10 the start date/time before which the associated advertisement should not be displayed;
and

12 the end date/time after which the associated advertisement should not be displayed;
wherein the face time comprises a time period during which a prescribed minimum
level of user activity occurs.

87. The software as set forth in Claim 65, further comprising a cookie generator
2 function that generates a cookie containing information relating to user/client device behavior
and/or user demographics, and that transmits the cookie to the at least one playlist server.

88. The software as set forth in Claim 87, wherein the playlist(s) is generated by the
2 at least one playlist server based at least partially on the cookie.

89. The software as set forth in Claim 65, wherein the playlist(s) is customized to the
2 user.

90. The software as set forth in Claim 65, wherein the playlist(s) is tailored to the
2 user.

91. The software as set forth in Claim 65, wherein the playlist(s) is generated by the
2 at least one playlist server based at least partially on user demographics and/or user/client
device behavior.

92. The software as set forth in Claim 65, wherein the at least one playlist server is
2 controlled by a vendor of the software.

93. The software as set forth in Claim 65, wherein the software is e-mail software.

94. The software as set forth in Claim 65, wherein the playlist(s) is generated by the
2 at least one playlist server based at least partially on user demographics.

95. The software as set forth in Claim 65, wherein the playlist(s) is generated by the
2 at least one playlist server based at least partially on user/client device behavior.

96. The software as set forth in Claim 1, wherein the advertisement display function
2 effects display of the plurality of stored advertisements when the client device is offline.

97. The software as set forth in Claim 1, wherein the client device is configured for
2 communications with a multiplicity of other client devices via the communications network.

98. The software as set forth in Claim 97, wherein the communications network is the
2 Internet.

99. The software as set forth in Claim 97, wherein the advertisement display function
2 effects display of the plurality of stored advertisements when the client device is offline.

100. The software as set forth in Claim 65, wherein the advertisement display
2 function effects display of the plurality of stored advertisements when the client device is
offline.

101. The software as set forth in Claim 65, wherein the client device is configured for
2 communications with a multiplicity of other client devices via the communications network.

102. The software as set forth in Claim 101, wherein the communications network is
2 the Internet.

103. The software as set forth in Claim 101, wherein the advertisement display
2 function effects display of the plurality of stored advertisements when the client device is
offline.

104. The software as set forth in Claim 1, further comprising an installer function for
2 installing the software on a computer-readable storage medium.

105. The software as set forth in Claim 1, further comprising an installer function for
2 installing the software on the client device.

106. The software as set forth in Claim 1, further comprising an installer function for
2 installing the software on a computer-readable storage medium associated with the client
device.

107. The software as set forth in Claim 65, further comprising an installer function
2 for installing the software on a computer-readable storage medium.

108. The software as set forth in Claim 65, further comprising an installer function
2 for installing the software on the client device.

109. The software as set forth in Claim 65, further comprising an installer function
2 for installing the software on a computer-readable storage medium associated with the client
device.

110. The software as set forth in Claim 1, further comprising an advertisement
2 display monitor function that determines whether or not an ad display failure condition has

occurred, whereby the ad display failure condition occurs when the advertisement display
4 function has not successfully displayed at least a prescribed number of advertisements over a
prescribed time period.

111. The software as set forth in Claim 1, further comprising a deadbeat user
2 determination function that determines compliance with a prescribed ad display policy.

112. The software as set forth in Claim 110, further comprising a disabler function
2 that disables at least selected functions of the software in response to a determination that an
ad display failure condition has occurred.

113. The software as set forth in Claim 111, further comprising a disabler function
2 that disables at least selected features of the software in response to a determination of non-
compliance with the prescribed ad display policy.

114. The software as set forth in Claim 110, further comprising an ad display failure
2 nag function that generates an ad display failure nag that notifies the user that the ad display
failure condition has occurred.

115. The software as set forth in Claim 114, wherein the ad display failure nag also
2 warns the user that at least selected functions of the software will be disabled if the ad display
failure condition is not rectified.

116. The software as set forth in Claim 111, further comprising an ad display failure
2 nag function that generates an ad display failure nag that notifies the user that a condition of
non-compliance with the prescribed ad display policy has occurred.

117. The software as set forth in Claim 116, wherein the ad display failure nag also
2 warns the user that at least selected functions of the software will be disabled if the non-
compliance condition is not rectified.

118. The software as set forth in Claim 110, further comprising:
2 an alert function that, in response to a determination that the ad display failure
condition has occurred, generates an alert that notifies the user that at least selected functions
4 of the software are about to be disabled unless the user takes corrective action to eliminate the
ad display failure condition; and

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- 6 a disabler function that disables at least selected functions of the software if the user
does not take the required corrective action.

119. The software as set forth in Claim 111, further comprising:

- 2 an alert function that, in response to a determination that a condition of non-
compliance with the prescribed ad display policy has occurred, generates an alert that notifies
4 the user that at least selected functions of the software are about to be disabled unless the user
takes corrective action to eliminate the non-compliance condition; and
6 a disabler function that disables at least selected functions of the software if the user does not
take the required corrective action.

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